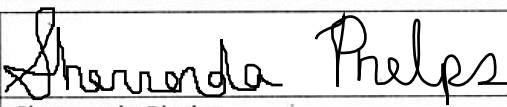





**Region 6 - Enforcement & Compliance Assurance Division**  
**INSPECTION REPORT**

Inspection Date(s):	01/16-17/2020	
Media Program:	Air	
Regulatory Program(s)	RMP	
Company Name:	ExxonMobil Baytown Corporation	
Facility Name:	ExxonMobil Baytown Olefins Plant	
Facility Physical Location:	3525 Decker Drive	
(city, state, zip code)	Baytown, Texas 77520	
Mailing address:	3525 Decker Drive	
(city, state, zip code)	Baytown, Texas 77520	
County/Parish:	Harris	
Facility Phone Number	(281) 834-6161	
Facility Contact:	Lindsey Beyer	Process Safety Engineer
	Lindsey.s.beyer@exxonmobil.com	
FRS Number:	1100 0046 3169	
Identification/Permit Number:	Air Operating Permit ID: O-01229	
Media Identifier Number:	RMP Number: 1000 0005 7528	
NAICS:	32511 Petrochemical Manufacturing	
Personnel participating in inspection:		
Nereyda Licea	ExxonMobil Baytown Refinery	BTRF Risk Management Supervisor
Lindsey Beyer	ExxonMobil Baytown Olefins Plant	Process Safety Engineer
J. Derek Reese	ExxonMobil Baytown Refinery	OE SSHE HQ Advisor
Kristine Linville	ExxonMobil	Senior Counsel
Sherronda Phelps	US EPA	Environmental Engineer
Charese Simpson	US EPA	Life Scientist
Craig Haas	US EPA	Environmental Scientist
Dan Roper	ERG	Chemical Engineer
Zachary Good	ERG	Chemical Engineer
EPA Lead Inspector Signature/Date	 Sherronda Phelps	3/13/2020 Date
Supervisor Signature/Date	 Samuel Nates	3/13/2020 Date

**Section I – INTRODUCTION****PURPOSE OF THE INSPECTION**

We, United States Environmental Protection Agency (EPA) Region 6 inspectors Sherronda Phelps and Charese Simpson, EPA HQ inspector Craig Haas, and Eastern Research Group (ERG) inspectors Dan Roper and Zachary Good, who are contractors for EPA, arrived at the ExxonMobil Baytown Olefins Plant at 8:00 AM on Thursday, January 16, 2020, for an announced inspection. We met with Lindsey Beyer (Process Safety Engineer) and other ExxonMobil personnel listed in Table 1 for an opening meeting.

Charese, Craig, Dan, Zachary, and I presented our credentials and informed ExxonMobil personnel that this was an EPA inspection to determine compliance with the facility's Chemical Accident Prevention Program. The scope of the inspection was a partial compliance evaluation (PCE), which included an evaluation of the facility's compliance with the Clean Air Act (CAA) Section 112(r) and the Chemical Accident Prevention Provisions in 40 C.F.R. Part 68.

This report will evaluate compliance at the XOM Baytown Olefins Plant. This inspection included both the ExxonMobil Baytown Refinery (XOM Baytown Refinery) January 13-15, 2020 and the ExxonMobil Baytown Olefins Plant (XOM BOP) on January 16-17, 2020. A separate report will be produced to evaluate the XOM Baytown Refinery, despite overlap in several regulatory elements. The XOM Baytown Olefins Plant is listed as a Program Level three (3) process facility. Prior to the inspection, I inquired if an employee representative was available, pursuant to section 112(r)(6)(L) of the CAA, to participate in this inspection and I was informed that XOM Baytown Olefins Plant is not a Union site..

**Table 1: Opening Meeting Attendance, Thursday January 16, 2020**

NAME	POSITION
Sherronda Phelps	Inspector
Charese Simpson	Inspector
Zachary Good	Inspector
Dan Roper	Inspector
Craig Haas	Inspector
J. Derek Reese	OE SSHE Environmental Advisory Lead
Rob Hill	ExxonMobil Baytown Olefins Plant
Tyler Tomes	ExxonMobil Baytown Olefins Plant
Kristine Linville	Senior Counsel
Lindsey Beyer	BOP Process Safety Engineer
Nereyda Licea	BTRF Risk Management Supervisor

**FACILITY DESCRIPTION**

XOM BOP employs approximately 507 employees operating 24 hours a day/7 days per week with scheduled turnarounds. XOM BOP operates to produce a variety of chemical intermediate feedstocks such as ethylene, propylene, and butadiene. XOM BOP has regulated flammables on site such as propylene, ethylene, propane, and butenes. In addition, the facility, makes use of chlorine and aqueous ammonia.

**Section II - OBSERVATIONS**

Mr. Justin Lucas (Day Superintendent) provided the inspection team information on the construction underway from the July 31, 2019 incident. A hydrocarbon release occurred causing a flash fire. During the inspection, we took a site tour of XOM BOP and were able to view the construction underway involving the area in question from the July 31, 2019 incident. As of the date of the inspection, there has been a new tower installed, a reboiler rebuilt, pumps rebuilt, and the piping is all that is left to install and any other necessary pieces/devices to complete the project. Construction is expected to end by mid-February.

The following observations for each Risk Management Plan (RMP) element/subpart was reviewed by various members of the inspection team. Each element/subpart was delegated to a responsible party of the inspection team which is detailed in Table 2 below. A second report will be issued and will contain a separate Eastern Research Group (ERG) independent report that discusses additional findings and observations made on site.

**Table 2: Element/Subpart Responsibility**

Section	Title	Responsibility	Personnel
68.12 - .15	Management System	EPA	Sherronda Phelps
68.20	Applicability	ERG	Sherronda Phelps
68.22 - .33	OCA	ERG	Dan Roper/Zachary Good
68.65	PSI	ERG	Dan Roper/Zachary Good
68.67	PHA	ERG	Dan Roper/Zachary Good
68.69	Operating Procedures	EPA	Sherronda Phelps
68.71	Training	EPA	Sherronda Phelps
68.73	MI	ERG	Dan Roper/Zachary Good
68.75	MOC	ERG	Dan Roper/Zachary Good
68.77	PSSR	ERG	Dan Roper/Zachary Good
68.79	Compliance Audits	EPA	Sherronda Phelps
68.81	Incident Investigations	EPA	Dan Roper/Zachary Good
68.83	Employee Participation	EPA	Sherronda Phelps
68.85	Hot Work Permit	EPA	Sherronda Phelps
68.87	Contractors	EPA	Sherronda Phelps
68.90 - .95	Emergency Response	EPA	Sherronda Phelps

Subpart G	Risk Management Plan	EPA	Sherronda Phelps
-----------	----------------------	-----	------------------

## 40 C.F.R. Part 68 – CHEMICAL ACCIDENT PREVENTION PROVISION

### Subpart A – General

#### 40 C.F.R. § 68.10 Applicability

XOM BOP is the owner or operator of a stationary source that has more than a threshold quantity of regulated toxic and flammable substances listed in 40 C.F.R. § 68.130 in a process; therefore, is subject to 40 C.F.R. Part 68 - Chemical Accident Prevention Provisions. XOM BOP has a CAA Title V permit and an Air Operating Permit: O-01553 for their Petrochemical Manufacturing processes (NAICS 32511). XOM BOP is subject to the Occupational Safety and Health Administration's process safety management (PSM) standard, 29 C.F.R. § 1910.119; therefore, XOM BOP has Program Level three (3) processes.

#### 40 C.F.R. § 68.12 General requirements

XOM BOP re-submitted a Risk Management Plan (RMP) based on the 5-year update requirement (40 CFR § 68.190(b)(1)) on September 21, 2018. This requires XOM BOP to develop and implement a management system, conduct a hazard assessment, implement the prevention requirements of 40 C.F.R. § 68.65 - § 68.67, develop and implement an emergency response program, and submit the data elements from 40 C.F.R. § 68.175 in their RMP.

#### 40 C.F.R. § 68.15 Management

XOM BOP uses the Operations Integrity Management System (OIMS) as a structured approach for managing the safety, health, security, and environmental risk at the facility. OIMS consists of many programs, procedures, practices, and manuals that assist in the day to day operations at the facility and is used to assist in various sections of the Risk Management Program regulations. OIMS is separated into 11 elements, with each element being owned by a XOM BOP or Baytown Area subject matter expert. The OIMS elements include the following: OIMS 1.1 Management Leadership, Commitment and Accountability; OIMS 2.1 Risk Assessment and Analysis; OIMS 3.1 Facilities Design and Construction; OIMS 4.1 Process and Facilities Information / Documentation; OIMS 5.2 Occupational Health; OIMS 5.4 Training; OIMS 6.1 Operations and Maintenance Procedures; OIMS 6.2 Work Permits; OIMS 6.3 Critical Equipment; OIMS 6.4 Mechanical Integrity; OIMS 7.1 Management of Change; OIMS 8.1 Third Party Services; OIMS 9.1 Incident Reporting Analysis and Follow up; OIMS 10.1 Emergency Preparedness; and OIMS 11.1 Assessment and Improvement. XOM BOP has developed a management system to oversee the implementation of Risk Management Program elements. XOM BOP assigned a qualified person or position that has the overall responsibility for the development, implementation, and integration of each of the Risk Management Program elements. XOM BOP OIMS documentation defined responsibilities of higher-level supervisors. I was later provided with the "OSHA Process Safety Management (PSM) and EPA Risk Management Plan (RMP) Compliance Review" for 2015 and 2018, which listed Risk Management Program element topics with an assigned assessor during the compliance audits.

**Subpart B – Hazard Assessment****40 C.F.R. § 68.20 Applicability**

XOM BOP is a Program Level three (3) stationary source subject to this subpart. XOM BOP is required to prepare an offsite consequence analysis and complete the five-year accident history.

**40 C.F.R. § 68.22 Offsite Consequence Analysis Parameters** – detailed in ERG report

**40 C.F.R. § 68.25 Worst-case Release Scenario Analysis** – detailed in ERG report

**40 C.F.R. § 68.28 Alternative Release Scenario Analysis** – detailed in ERG report

**40 C.F.R. § 68.30 Defining Offsite Impacts - Population** – detailed in ERG report

**40 C.F.R. § 68.33 Defining Offsite Impacts - Environment** – detailed in ERG report

**40 C.F.R. § 68.36 Review and Update** – detailed in ERG report

**40 C.F.R. § 68.39 Documentation** – detailed in ERG report

**40 C.F.R. § 68.42 Five-year accident history** – detailed in ERG report

**Subpart D – Program 3 Prevention Program**

**40 C.F.R. § 68.65 Process Safety Information** – detailed in ERG report

**40 C.F.R. § 68.67 Process hazard analysis (PHA)** – detailed in ERG report

**40 C.F.R. § 68.69 Operating procedures** – detailed in ERG report

**40 C.F.R. § 68.71 Training**

The Area Training Organization (ATO) maintains all required training in webCAT, a web-based application. New hires, specifically operators, receive basic operator training, which consists of both classroom and computer-based training. Once completed, the operator moves on to shadow or field train with senior operators and complete several different modules. A final exam is administered and, upon passing, the operator is deemed qualified.

The regulation requires that each employee presently operating a process and each employee newly assigned to a covered process be trained or tested to ensure competency with the operating procedures that pertain to their duties. I, Sherronda Phelps, reviewed training records for several randomly selected employees to ensure that initial training was documented and that each employee involved in operating processes received and understood the training.

The regulation requires refresher training to be provided at least every three years, and more often if necessary, to each employee operating a process to ensure that the employee understand and adheres

to the current operating procedures of the process. Refresher training is issued to operators through webCAT. Of the records reviewed, all operators had received refresher training as required.

**40 C.F.R. § 68.73 Mechanical integrity** – detailed in ERG report

**40 C.F.R. § 68.75 Management of change (MOC)** – detailed in ERG report

**40 C.F.R. § 68.77 Pre-startup safety review** – detailed in ERG report

**40 C.F.R. § 68.79 Compliance audits**

XOM BOP does a plant wide comprehensive compliance audit. The facility provided their two most recent Compliance Audits (July 2015 and May 2018). Each audit is conducted with internal ExxonMobil staff from XOM BOP, as well as, subject matter experts from other ExxonMobil facilities. The Compliance Audits yielded no findings. The regulation requires that the compliance audits be certified. This documentation was requested; however, the certification for year 2015 was all that was provided. According to, 40 C.F.R. § 68.79 (a), “The owner or operator shall certify that they have evaluated compliance with the provisions of this subpart at least every three years to verify that procedures and practices developed under this subpart are adequate and being followed.” EPA requested compliance audit certifications for the two most recent compliance audits completed.

**40 C.F.R. § 68.81 Incident investigation** – detailed in ERG report

**40 C.F.R. § 68.83 Employee participation**

XOM BOP had a written plan of action regarding the implementation of the employee participation required under 40 C.F.R. § 68.83. We were told that employees have access, via a company intranet, to documents including:

- materials of construction,
- piping and instrument diagrams,
- electrical diagrams,
- relief system design bases,
- applicable design codes and standards, and
- material and energy balances.

We were told that relevant employees participate in the development of process hazards analyses (PHA). All members of the HAZOP team play an active role in data collection, hazard(s) identification, risk assessment, and final report generation.

**40 C.F.R. § 68.85 Hot work permit**

XOM BOP has a system in place where hot work permits are issued for hot work operations conducted on or near covered processes. It is the policy of the facility to retain hot work permits for 72 hours post completion of the work. **40 C.F.R. § 68.87 Contractors**

The inspection team spoke with the OIMS 8.1 Area Administrator, who handles third party services by contractors at the facility. There is a list of contractors maintained. XOM BOP can consult the list and select an appropriate contractor when needed. Time on site varies by the services being provided by the contractor. If there are issues that arise with a given contractor, they could possibly be removed from the approved list or given a probationary period. Prior to commencing work at the facility, contractors must undergo site specific orientation training. Access to the facility is controlled via the badging system.



Upon request, we reviewed records of “start of job” checklists. This appeared to be a comprehensive list covering items including safety, potential fire and explosion hazards, site-security and an emergency action plan, etc. This document is reviewed on an annual basis.

## **Subpart E – Emergency Response**

### **40 C.F.R. § 68.90 Applicability**

XOM BOP is designated as a “first responder” in case of an accidental release of a regulated substance.

### **40 C.F.R. § 68.95 Emergency response program**

XOM Baytown Area operates its emergency response program with approximately 195 volunteer employees and 5 full time employees. ExxonMobil trains employees in fire, rescue, hazmat, and medical emergency response activities. Once trained, the employees have a wide range of capabilities and are self-reliant to handle exterior, interior, confined space, and high angle incidents. Shifting teams of process responders conduct drills once per month, in addition to the annual training that is required. The facility is a part of the Mutual Aid Mont Belvieu Channel Industries Mutual Aid (CIMA) and Baytown ExxonMobil Emergency Response Network (BEERN) plans, where they provide emergency services to sister facilities. They also participate in the Baytown Area Local Emergency Planning Committee and periodic meetings of the committee. The facility is equipped with fire trucks, medical vehicle, and dedicated rescue trucks with monitoring equipment. Inspections and maintenance of their emergency response equipment are handled by third party services.

## **Subpart G – Risk Management Plan**

**40 C.F.R. § 68.190 Updates** – The last update was submitted on September 21, 2018 addressing the BOP-2X project as required by 40 C.F.R. § 68.190.

**40 C.F.R. § 68.195 Required corrections** –The next RMP re-submission is due by September 21, 2023, unless an update or correction is required by 40 C.F.R. § 68.190 and § 68.195.

## **Section III – AREAS OF CONCERN**

- 1) 40 C.F.R. § 68.79 (a), “The owner or operator shall certify that they have evaluated compliance with the provisions of this subpart at least every three years to verify that procedures and practices developed under this subpart are adequate and being followed.” EPA requested the two most recent compliance audits completed. ExxonMobil Baytown Olefins Plant failed to provide the certification for the compliance audit completed in 2015.

\*Additional Areas of Concern may be included in the ERG inspection report.

**Section IV – FOLLOW UP**

Additional information was provided for review after exiting the facility on January 17, 2020 via the provided Sharefile site created by ExxonMobil. See correspondence dated January 31, 2020.

**Section V – LIST OF APPENDICES**

There are no appendices/attachments in this report.